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THE EDUCABLE MENTALLY RETARDED CHILD IN THE ELEMENTARY SCHOOL. WHAT RESEARCH SAYS TO THE TEACHER SERIES.

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THIS PAMPHLET SUGGESTS HOW RESEARCH FINDINGS MAY HELP THE TRADITIONAL PUBLIC ELEMENTARY SCHOOL CLASSROOM IN RECOGNIZING AND MEETING THE NEEDS OF THE EDUCABLE MENTALLY RETARDED CHILD WHEN NO SPECIAL CLASS PROVISIONS EXIST. CHARACTERISTICS OF THE MENTALLY RETARDED CHILD, IQ CLASSIFICATION LIMITS, PLACEMENT DECISIONS, OTHER SERVICES, PROGRAM CHANGES, AND BOTH THE CHILD'S AND THE TEACHER'S PROBLEMS ARE DISCUSSED. A 24-ITEM BIBLIOGRAPHY IS INCLUDED. THIS DOCUMENT WAS PUBLISHED BY THE NATIONAL EDUCATION ASSOCIATION, 1201 16TH STREET, N.W ., WASHINGTON, D.C. 20036, AND IS AVAILABLE FOR $0.25. (HJ)

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WHAT RESEARCH SAYS TO THE TEACHER

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The Educable Mentally Retarded Child in the Elementary School

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Department of Classroom Teachers
American Educational Research Association
of the National Education Association

SCHOOLING is what happens to children and youth under the guidance of classroom teachers. Instruction is likely to be most effective when the teacher keeps his planning and instruction close to the useful and constructive findings of educational research. Through research, the modern teacher (a) seeks to maintain a sensitivity to the advancing edge of human knowledge, (b) helps to keep up on the facts that may improve his work, and (c) finds in current research stimulation toward discovering new truths from his own work and studies.

Confronted by a heavy schedule of teaching and by an overwhelming array of technical research reports, the typical teacher often must forego the benefits of research. While there is no substitute for serious study, the primary purpose of the present series of pamphlets is to indicate how research findings may help with the everyday problems of the classroom teacher. For this reason, the pamphlets are relatively brief and are written in nontechnical style.

The Department of Classroom Teachers and the AERA are indebted to the individual authors who received no honorariums and often took time that they could not readily spare. All of them have done so in the belief that research can make a difference in advancing the usefulness and quality of education.

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The Educable Mentally Retarded Child in the Elementary School

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EXPLANATION

The author of this pamphlet, Herbert Goldstein, is associate professor of education at the Institute for Research on Exceptional Children, College of Education, University of Illinois. He has drawn upon research material that offered possibilities of being most helpful to classroom teachers. Mr. Goldstein observed that the pamphlet on the gifted child (Pamphlet No. 17 by James J. Gallagher) suggested that certain standard principles of operation in regular classrooms become more vulnerable as deviancy becomes more marked. As a result, he sought to focus, as much as possible, upon the same principles and procedures discussed by Dr. Gallagher. Thus, the two pamphlets represent the extremes of the continuum of intelligence typical of regular elementary-school classes.

The original manuscript was reviewed by J. Raymond Gerberich of the University of Connecticut and by Richard R. Foster, assistant superintendent of the Public Schools of the District of Columbia. Although changes were made on the basis of suggestions of the reviewers and the staff of the NEA Information Services, the interpretations and recommendations are those of the author.

THE EDUCABLE MENTALLY RETARDED CHILD IN THE ELEMENTARY SCHOOL

DESPITE A MARKED INCREASE in special class provisions for the school-age educable mentally retarded, the majority of these children continue to get their education in regular classrooms. Experts estimate that only one in four retardates is currently in a special class. This estimate is for the entire country and varies considerably from state to state. It may range from as many as one in three retardates in a special class in some states to as few as one in 50 in others.

Growing interest in retarded children suggests that we might be optimistic about the chances of future generations of these children for receiving the type of education that they require. Many communities, regions, and states hitherto without special classes are activating new programs as rapidly as they can find staff, space, and funds.

For the present, and until the time that the shortage of specially trained teachers and classroom space is relieved, we shall have to find ways for accommodating many retarded school-age children within the traditional public elementary-school classroom. By accommodating, we mean more than simply sheltering. These children require an educational program of top quality and effectiveness in order that they may have a good chance of assimilation in society at maturity.

WHO IS AN EDUCABLE MENTALLY RETARDED CHILD?

The educable mentally retarded child in the regular grades is a low achiever. Not all low achievers, however, are mentally retarded. This distinction is of utmost importance because low achievement is not the primary factor in identifying the retarded; it is only one symptom of a more profound and usually more complex set of conditions. In some cases, low achievement is an outcome of emotional problems. In others, it may be due to sensory impairment, cultural deprivation, and/or learning disabilities. In the case of the retarded child, low achievement is

almost exclusively the result of intellectual subnormality. This is not to say that retarded children are unaffected by the aforementioned conditions. On the contrary, they are at least as vulnerable as their normal or gifted peers. For the retarded child, however, these conditions tend to further depress already depressed ability. Counteracting the conditions that compound intellectual subnormality helps to upgrade the achievement of the retarded just as it helps his normal and gifted classmates.

This accomplishment was dramatically illustrated in a study of preschool children from seriously deprived and, in some cases, *traumatic* environments. The major goal of this study was to see if the negative effects of poor environment could be counteracted through stimulating preschool experiences in a classroom setting. At the end of the study, it was found that a significantly large number of children were upgraded in performance so that some judged to be borderline retarded became and remained normal, while those of lower status moved up commensurately. In this study, one of the important factors was the age of the children. They were treated early and intensively. This fact must be taken into account in working with school-age retardates.

The unique characteristic of the mentally retarded is intellectual subnormality and all that this implies in classroom performance and behavior. In this respect, there is an unevenness in the achievement of these children. The ingredients of intellectual subnormality (limited ability to reason, to cope with abstract concepts, and to perceive essential facts and effect relevant relationships) help to emphasize low achievement as classroom tasks invoke more and more of these abilities in the solution of learning problems. Thus, the *borderline* retarded child in the first grade will be more nearly like his peers than his more retarded classmates. The borderline child might not become obvious as a low achiever until he is well into the third grade. His less-endowed classmate may be detected by the end of his first-grade experience and may verify his status clearly during the second grade. Again, it is worth repeating that the classroom teacher would not be justified in equating low achievement with mental retardation. He would be justified, however, in initiating the steps that would differentiate the *retarded* low achiever from the others so that appropriate measures in remediation might be taken.

Where Does Retardation Begin?

We stated earlier that one of the best preliminary guides to identifying the educable mentally retarded is through his classroom performance and behavior. Ascertaining the more precise intellectual status of the child is best left to a qualified psychologist. He stands a better chance, through the use of appropriate measures and observations, of differentiating the retarded child from the child who appears to be retarded for reasons other than intellectual subnormality.

We must be careful in applying labels

The evaluation of a child will help to ascertain his retardation and, probably more important, will give some clue as to his degree of retardation. Where there are special classes, the degree of retardation will have much meaning to the special class teacher. The results of the psychological assessment will provide the classroom teacher with information that will give indications for educational planning and for classroom management. Where there are no special classes or where these are crowded, the retarded child will probably remain in his regular class, and his degree of mental retardation becomes more important than the label of retardation. From observations of behavior, the teacher will see indications for the educational program.

For administrative and legal reasons, most school districts have set up IQ limits for classification purposes. Children with IQ's between 30 and 50 are commonly termed trainable mentally retarded. Those with IQ's between 50 and 70 are usually called

educable mentally retarded or educable mentally handicapped. Children with IQ's between 75 and 90 are most often classified as slow learners.

It is generally accepted that these IQ limits transcend simply a number derived from a psychometric examination. Numbers thus employed refer to all of the characteristics most probably found through the application of a thorough psychological evaluation. There is always the danger that some magical property may be assigned to the IQ so that it becomes the sole criterion in making judgments and decisions about children. Some school districts, for example, will accept a child with an IQ of 75 in a special class, but will reject a child with an IQ of 76 or 77. When this happens, we must recognize that administrative expediency dictated by overcrowded conditions is probably forcing the school district to make an arbitrary distinction between children where no real distinction exists. These administrators probably would be the first to agree that this is the case. What we must guard against is unnecessarily indulging in this kind of specious thinking.

In a regular classroom, for example, it is important for the teacher to know the cause underlying low achievement and concomitant behavior. It is even more important to know the degree of retardation so that realistic expectancies and appropriate programming can be established. The teacher, however, does not need to make rigid distinctions between children on the basis of numerical IQ; the extent of deficiency in achievement and the way the child goes about learning and solving academic and social problems are the major facts he needs to know. We are not implying that it would be damaging for a teacher to know his pupils' IQ's. On the contrary, the more information a teacher has about his pupils, the more intelligent and effective will be his decisions. The IQ can be used to a limited degree, for example, in setting up expectations for the rate of learning. The IQ also helps the teacher estimate the child's mental age and thereby appraise his readiness for certain academic activities and explain his behavior.

Table 1 estimates what we might find if we tested all school-age children in a given community with the *Stanford-Binet* test of intelligence. This table suggests the proportion of children that

TABLE 1.—APPROXIMATE PROPORTIONS OF SCHOOL POPULATIONS AT VARIOUS INTELLECTUAL LEVELS

Stanford-Binet Intellectual Levels	Percent of School Population		Occupational Expectations
	Average to Superior Socioeconomic Community	Below Average Socioeconomic Community	
IQ below 85	16 to 20	25 to 40	Semiskilled and unskilled jobs service and labor
IQ below 80	10 to 12	15 to 20	
IQ below 75	3 to 4	6 to 7	Unskilled work
IQ below 50	1 to 2	1 to 2	Sheltered workshops and custodial setting

might be found at various levels of intelligence in communities of differing socioeconomic status. From studies of mentally retarded children in the public schools, we can expect a sizable proportion of these children to come from below average socioeconomic parts of the community.

We must remember, however, that the data in Table 1 are only estimates, and that they will vary, sometimes markedly, from one community or neighborhood to another. In a current study involving first graders with IQ's between 60 and 85 in three counties, two rural and one urban, the estimates before testing were that close to 15 percent of all first graders would be found within these IQ limits. When the testing with the *Stanford-Binet* was completed, however, it was found that the two rural counties had only 5 percent and 7 percent, respectively, in this range, while the urban area had 10 percent. The discrepancy between these results and the data in Table 1 can be accounted for by the unique nature of these counties. The rural counties were rich farming areas in which there were remarkably few families of substandard socioeconomic status. The urban area revealed the same picture. Other rural counties, in less fortunate locations,

would probably show proportions more nearly in keeping with the estimates in Table 1, while proportions in severely depressed areas and neighborhoods might even exceed these estimates.

70 Is Not Necessarily the Same as 70

This heading may seem to be the opening line of a mathematical puzzle. Actually, it is a simple statement of fact about the results of intelligence tests when only the IQ is taken into account. Differences between children of similar IQ are often the result of variations in the process of measuring intelligence and differences in the tests used to measure intelligence. Many tests differ in their concepts of intelligence and therefore measure different aspects. The *Stanford-Binet*, probably the individual intelligence scale most frequently used in measuring the intelligence of school-age children, concentrates mainly on verbal behavior. Another frequently used test, the *Wechsler Intelligence Scale for Children*, measures both verbal and motor behavior, while many other tests measure only motor behavior. Clearly, then, an IQ of 70 (or any other value) would have meaning only in terms of the test used.

In addition to the differences between tests, we must take into account differences *within tests*. For example, the *Stanford-Binet* measures different skills at different ages. This test can be used from the preschool age all the way through to adulthood. At the preschool and primary ages, it measures mainly motor skills and shifts increasingly to verbal tasks through succeeding age levels. Where the same test is used, then, two youngsters, one 5 years old and one 11 years old, could well exhibit very different performances despite the fact that they ended up with similar total scores.

Another fact to consider, even when children are measured with the same test of intelligence, is the difference in similar IQ that arises from differing performance on a test. The *Stanford-Binet*, for example, is age-graded. That is, there are clusters of six tasks at each age level. The test is not over until a child fails all six tasks in an age level. As long as he passes even one task in an age cluster, the test must go on. Thus, one child may pass two or three tasks in each age level over a broad age span, while another child may pass all of the tasks in a small span. Nevertheless, their cumulative scores may be the same. Also, there are

qualitative differences in performances of the children despite similar IQ's.

It follows, then, that the teacher needs more than the IQ to make decisions about the educational program for his retarded pupils. First, he will have to take into account each child's chronological age. This will give some indications of the effects and/or contributions of the child's experiences. Second, taking into account the child's age and his IQ will give the teacher an idea of his mental age. A very simple formula can be applied to determine the mental age (MA) of a child once his chronological age (CA) and IQ are known. The formula is: $\frac{IQ}{100} \times$ CA (in months) = MA (in months).

Here is an example of how the formula works. Marcia is 7 years and 9 months of age and has an IQ of 75. We first convert Marcia's age into months. According to our formula, then, $\frac{75}{100} \times 93$ months $= .75 \times 93$ months $= 69.75$ months. By changing back to years, $\frac{(69.75)}{12}$, we find that Marcia has a mental age of 5 years and 10 months.

Helen, however, is 11 years and 3 months of age and also has an IQ of 75. By applying the formula, we find that Helen has an MA of 8 years and 5 months. If we knew nothing else about these children and had to make a decision about a reading program for them, we would be safe in estimating that Marcia is probably a candidate for reading readiness or a preprimer at best, while Helen might be better guided into a first-level reader.

When we can add to the CA-MA picture such information as socioeconomic status, school experiences, and personality data, we reduce the amount of guessing and trial-and-error exploration that precedes teaching and administrative action. Some of this information will be available as part of the pupils' records. Other important data can be gained through the help of school specialists and social service personnel and by the classroom teacher acquainting himself with the child, his family, and his environment.

We must conclude that the IQ as a single piece of information falls short in describing the retarded child and in guiding plans for educational procedures. The MA, on the other hand, has

greater meaning in assessing the status of a child and in planning his schooling.

Are Educable Mentally Retarded Children Easily Identified?

There are teachers who believe that the educable mentally retarded child is easily identified because of his behavior and his level of academic work. This is only partially true. As stated earlier, while the retarded pupil is generally below the class level in academic subjects, so are children with problems other than intellectual subnormality. We need to go beyond the self-selection implicit in low achievement and distinguish the retarded child from those who need other kinds of treatment.

In the early school years, this is not as easy as it might seem because of the slight differences in the performance of children. At this stage and in later years of the child's development, the best procedure is to rely upon a thorough evaluation by a qualified psychological examiner.

Table 2 is a commentary on the procedures frequently used in identifying educable mentally retarded children in the classroom. The process of identifying the child is not to be taken lightly. There is a great deal at stake—far more than simply turning the light of information on him. We must always keep in mind that identifying a child as mentally retarded is, at the same time, labeling him. No matter how benign and worthy our intentions, we are still assigning to the child a status that is far less than desirable. We must, therefore, be as right as we can be the first time, since there are few opportunities for retracting or changing the label once it is applied.

Methods A, B, and C in Table 2 should be preliminary to the individual psychological evaluation. Some school systems, because of expense and time shortage, rely on method C, the psychometric examination. This one method is not enough. Such evaluation probably will detect the retarded children, but it also stands a good chance of labeling as intelligently subnormal those children with learning disabilities, emotional problems, and cultural deprivations. Many of these children might perform within the normal or gifted range if they were not impeded by these conditions. To brand such children as retarded is an in-

TABLE 2.—METHODS IN IDENTIFYING RETARDED CHILDREN

Method	Limitations
A. Teacher observation	Too often depends on ranking of child in class achievement or on his behavior. May overlook children when differences in achievement are small. A withdrawn or overly aggressive child, with seemingly uncontrolled behavior, may be judged as retarded. Should follow through with individual psychological examination.
B. Group intelligence test	Good for screening entire class where large differences in achievement and/or behavior are absent.
C. Individual psychometric examination	Superior to group intelligence test, but has limitations. Tells how the child scores on a test of intelligence, but does not indicate why.
D. Individual psychological evaluation	Best and most dependable procedure. Not only indicates child's intellectual status, but also gives a picture of his strengths and weaknesses as well as his personality development. An absolute must if judicious action is to be taken.

justice and is wasteful, since appropriate treatment would probably help to rehabilitate them. To identify these students as retarded is to sidetrack them from the type of remedial help they need.

The most dependable method of identification is to have a qualified examiner give the child the most thorough psychological evaluation possible. Such an examiner has available to him both psychometric and psychological instruments of measurement. These, plus the vital developmental information about the child and the examiner's clinical experience, tend to reduce the probability of error. When the examination is completed, the

psychologist should have a far more complete picture of the child than can be obtained in methods A, B, and C. Thus, he can communicate to the classroom teacher many constructive suggestions for educating and managing the child.

We should recognize that the choice of technique in identification has, as one of its criteria, reduction of errors in labeling. Research and experience indicate that a psychological evaluation offers the best chance for meeting this criterion.

What Are Retarded Children Like?

Both research comparing retarded children with their normal and gifted classmates and the astute observation of teachers over a long period of years have elicited information about these children that contributes toward educational and management procedures.

Among the most important facts to remember about the characteristics of the educable mentally retarded are (a) they are shared with both normal and gifted peers—differences are a matter of degree and not of kind; (b) few children will exhibit all of the characteristics to be discussed; and (c) many of the characteristics are subject to positive change if the right combination of understanding and treatment is employed.

Family background. A large proportion of educable mentally retarded children come from near or on the "wrong side" of the tracks. The effects of subaverage living conditions are seen in their physical and cultural undernourishment. Many of them are prone to illness and lacking in physical stamina. Their language is often impoverished, if not very late in developing, and laden with colloquialisms. In a sizable number of cases, lack of motivation in schoolwork is a complicating factor that arises from the family's apathy or lack of understanding of the purposes of education. In some families, the presence of more than one retarded child is not uncommon.

A lesser proportion of these children have been found in middle- and upper-class families. A sizable proportion of these are retarded because of accident and/or illness at birth or in early childhood. The existence of retarded children in well-to-do families reminds us that retardation is not limited to the poor

and the unfortunate. In fact, as the public's attitude toward the retarded child improves and as diagnostic techniques become more perceptive, we shall find more of these children at all socio-economic levels. This is not to say that retardation is necessarily on the increase, but rather that children once missed in testing programs are now identified.

Are the educable mentally retarded behavior problems? Depending upon what one calls a behavior problem, the probability is that the answer is "yes," when we consider the retarded child in the regular class. This condition may not be nearly so evident in the early years of schooling as later. As the child matures, however, he will probably show one of the three dominant types of behavior. First, he may be withdrawn or seemingly detached from the world around him. Second, he may be very negativistic in his relationships with the teacher and other children as well as in his attitudes about himself. Third, he may be overly aggressive and hostile.

When we consider the conditions under which the retarded child functions, his behavior becomes understandable. At home, in the neighborhood, and particularly at school, this child is confronted with tasks and expectations of performance for which he has inadequate intellectual equipment. At the same time, he can see children who appear little different from him carrying out the tasks rapidly and with great efficiency. As he matures, the discrepancy between his performance and that of his peers becomes more obvious both to himself and to those around him.

Retarded children also exhibit individual differences

As a result, some children retreat from the unhappy situation. They are satisfied to daydream or to dawdle with crayoning all day long. They fade into the background of the class in an effort to avoid painful attention. Others, the negative types, may become ambivalent. On the one hand, they want to participate and tend to move in the direction of classroom activity. At the same time, their well-known tendency to fail deters them. Thus, they move first in the direction of engaging in classroom work or activity, but then step back just as the moment of performance becomes imminent. To many of these children, refusal is just as painful as acquiescence.

The aggressive and/or hostile child is probably the teacher's greatest problem. He may strike out in all directions and in many unacceptable ways at a world that becomes increasingly full of pressure. His behavior often disrupts the best laid plans of the teacher. He offends almost everyone in sight. His peers, in turn, reject him more and more openly, which only tends to nurture his hostility. In some cases, the aggressiveness is not manifested in hostile behavior, but in inappropriate acts. The insecure child may be unnecessarily boisterous and thoughtless of the feelings of his peers. He will often overestimate his abilities, rush blindly into situations that require skills far beyond his best, and leave himself vulnerable to criticism and ridicule. He doesn't seem to learn from these encounters, but repeats them again and again.

The classroom teacher can be helpful with all of these children if he will act in concert with the child's needs rather than react only to his behavior. The teacher, through perceptive and well-planned acts, can do much to turn the tide of failure and to change classroom tasks and activities into acceptable and constructive pursuits. In each case, the important factor is knowledge of the child and his assets and liabilities. Planning for the withdrawn child means finding his competencies and his preferences and using them to attract him ever so gradually out into the open where he can see for himself that there are activities which will bring him rewards and satisfactions. The teacher may have to surround the lure with all kinds of attractive bait, but it is worth the extra effort to get this child into productive acts.

For the ambivalent child, planning may indicate that the classroom hurdles should be lowered temporarily so that they will not

look so imposing or insurmountable. As the pupil finds that there is more to be gained by advancing than by retreating, the hurdles can be raised within the limits of his ability.

Probably the most difficult problem to solve is that of the hostile and aggressive child. Such a pupil places a strain on management, since he usually involves part, if not all, of the class in his outbursts. There is no short and easy way to the solution of his problems. One approach is through counseling. Many retarded children have sufficient potential for insight that teachers are warranted in efforts to help them see the implications of their behavior. In all likelihood, it will pay to work with their families as well, since hostility and inappropriate aggressiveness are often stimulated by the pressures or rejections found in the home setting.

Another approach involves teacher-engineered experiences of success. Success in all cases should be real and discernible. It should be an outcome of traditional classroom activities and not sought through irrelevant tasks and tricks. Cleaning erasers, carrying notes to the principal, and helping the custodian put up chairs for the PTA meeting may be useful, but they are not enough to help the child toward realistic feelings of success. Routine tasks may give the teacher a breather by assuring the child's absence from the classroom, but they should not be confused with activities "benefiting the child."

There is a very good chance that all three types of educable mentally retarded children with behavior problems—the withdrawn, the ambivalent, and the aggressive—are in need of and seeking the same things. Like all of us, they want to belong, they want status, and they want a feeling of accomplishment. The behavior of these children is understandable and perfectly reasonable in light of the relationship between their skills and abilities and the demands of their environments. The usual strategy on the part of the teacher is to try to "change the child" via lectures, punishment, and/or reward. A more profitable strategy might well be to change the conditions around the child and thereby change the child's behavior. A pattern for promoting changes in classroom conditions will be discussed in a subsequent section.

Who likes the educable mentally retarded child? One of the classical studies of the social acceptance of the retarded child in

the regular classroom indicates that he is far from being the most popular child. When his peers were asked to name the one in the class most desirable as a companion, for work, play, and cooperative activities, the retarded pupil was most frequently left out. In a sense, then, the educable mentally retarded child in the regular class can be present *physically*, but absent *socially* and *psychologically*.

Teachers will be interested to know that educable mentally retarded children in this study were rejected mainly because of offensive behavior. The fact that these children were inept academically was of minor importance. The precipitating conditions were bullying actions, silliness, poor personal hygiene, and lack of skill in games. Interestingly enough, these are conditions that are far more subject to amelioration than are deficiencies in academic prowess. Other research has indicated that educable mentally retarded children in special classes are probably comparatively healthier in personality factors than are similar children in regular classes. This may be the result of an environment wherein competition is reasonable and consonant with the abilities of the children in the special classes. An accepting environment, to the degree that it is possible in the regular grades, might reduce much of the unacceptable behavior of educable mentally retarded children in these classes and make them more acceptable to their normal peers.

How variable is school achievement among the educable mentally retarded? The strengths and weaknesses of the educable mentally retarded pupil in the regular classroom show as much variation as do those of their normal classmates. The only safe generalization to draw is that these retarded children will perform at a level lower than the average for the class. The discrepancy between their performance and that of their classmates, however, will vary according to the grade level and the nature of the subject matter.

During the typical readiness period of first graders, normal and retarded children will exhibit similarly shaped profiles on readiness tests but, on the average, the scores of the retarded will be several months below the class average. During the first years of school life, the discrepancy grows slowly. As the subject matter becomes increasingly complex and as mechanical

skills become supplanted with conceptual skills, the discrepancies become more marked. For many retarded children, conceptual skills do not acquire the stature of mechanical skills. Thus, some students can appear to read fourth-, fifth-, and in some cases, sixth-grade materials. Rarely, however, does their comprehension keep pace. They may be "calling words" in a fifth-grade reader, but only be able to comprehend second-grade materials. Similarly, they may be able to tackle carrying, borrowing, multiplication, and division in arithmetic, but be unable to identify the arithmetic process in a problem stated anecdotally.

In language development, the retardate often is inferior to his normal classmates in both quality and range. Sentences of few words and impoverished ideas are not only related to the fact that he is mentally retarded, but may also reflect an ideationally impoverished home and a minimally verbal environment.

Social studies, being essentially verbal in terms of classroom procedures, also appear to be a "soft spot" in the academic achievement of the retarded child. The teacher can be badly fooled in this subject, however, if he equates poor verbal ability with limited experience and knowledge. Some retarded children have had extensive experiences in social learning, but lack the vocabulary to relate what they have learned. The "soft spots" in the social learnings of the retarded are usually in the abstractions and complexities of our mores and formalities.

The social studies offer many, perhaps the most, opportunities for the active class, retarded children included, to work together in achieving the desired goals of learning. Other subject-matter areas will require direct instruction at the child's level of achievement. Emphasis on mechanical skills and on concepts in academic subjects is necessary, even though they require much time and effort. In language development, in particular, we must try to diminish bad habits in verbalization (such as single-word responses where multiple-word responses are indicated) and to eliminate minor speech defects.

Since there are as many patterns of achievement for educable mentally retarded children as there are for the normal and gifted, the educational prescription for each will depend upon an evaluation of all of the child's strengths and weaknesses. Teacher-administered tests of achievement are good indicators

of each child's status in academic subjects. Tests should be selected that will sample the pupil's achievement in such a way that the range of his abilities will be indicated. A test appropriate for the rest of the class may be inappropriate for the retarded child. For example, a teacher in the fifth grade may administer the test indicated by the general level of his class, such as an intermediate form. The retarded child in that class, who ordinarily functions at a primary level, will probably score at the lowest point in each aspect of the test and produce a profile that resembles a straight line. This test shows how high he can achieve, but does not indicate how low. In this respect, the better test for this child would be a primary form. This test will not only show his peak achievements but will also show his liabilities, since the primary forms indicate achievement as low as that for early first graders.

SCHOOL PROGRAMS FOR THE EDUCABLE MENTALLY RETARDED

Achievement tests, along with the classroom teacher's observations, usually indicate the level of teaching materials appropriate for the child. The teacher now must temper educational purposes with an appreciation of the child's self-perception. Even though a primer may be indicated for an educable mentally retarded child in the third grade, it might be well to think twice as to the effects of putting such an immature text in his possession. The child sees his classmates reading stories at his interest level from hard-cover texts. He knows that they are advancing and maturing. At the same time, he is not only isolated from the class reading groups, but must struggle along in a text that is liberally sprinkled with rosy-cheeked tots, fluffy pets, and childish language. As a result, many of these children shy away from reading. Teachers may find that these youngsters avoid reading because they simply do not enjoy it, and this may be true in some cases. There is a strong possibility, however, that many educable mentally retarded children in the regular grades detest reading because their reading materials make them look ridiculous.

A constructive method for reconciling the chronological age factors of the educable mentally retarded child with his level of achievement in reading may be found in the new texts becoming available as supplemental and remedial readers. Many texts now are in series form, commencing with preprimers and primers. In some series, high interest-low vocabulary texts are available in a broad variety of stories. For the child who is minimally below his class level, "companion" texts may be indicated. These resemble the standard text in every way (the same picture on the same page, for example), but tell the story in simplified language.

Arithmetic does not represent the problem of stigma for retardates to the same degree that reading does, unless the teacher relies entirely on workbooks designed specifically for the primary grades. In this case, undesirables become evident. Many publishers produce arithmetic materials that are ambiguous in terms of level. Supplemental to these are a variety of "ready to be reproduced" masters for ditto or hexagraph devices. These can be bound into a teacher-made arithmetic text for the retarded child so that they constitute an effective developmental sequence of learning.

The teacher must guard against the expedient of letting the workbook do his teaching for him. It is all too easy to assign the retarded child long lists of words to copy or to match with pictures. It is just as easy to give him page after page of addition and subtraction problems and to have him color the squares red and the circles blue. Such "busy work" keeps the child busy, quiet, and out of the way so that the teacher can work with the rest of the class. Unfortunately, however, it is almost impossible for educable mentally retarded children to learn the concepts they need so badly from the pages of a workbook. Time must be taken during each day to help the retarded child learn the why's and the when's, as well as the how's, to the degree that he can. We would all agree that it is not enough to know how to add. We must also know when addition is the indicated process and why. This is best done in personal interchanges in comprehension and problem solving between teacher and pupil.

Usually, the retarded child can participate in the social studies along with the rest of the class, if the teacher makes the neces-

sary plans and provisions. Planning the unit should take into account those areas of operation within which the educable mentally retarded child can make his contribution. He can probably enter into class discussions, if questions within his capabilities are directed to him. He can work with committees and panels, if his skills and abilities are considered when these are planned.

The same conditions can prevail in such areas as health, safety, music, art, and physical education. Good planning will bring to light those segments of the area of study within which the retarded child can cooperate.

Finally, school programs for educable mentally retarded children in the regular grades should incorporate an ingredient that is not academic in nature, but essential to good mental health. This ingredient is integration of the educable mentally retarded child in the totality of the class. The research about the social status of educable mentally retarded children discussed earlier indicated that the majority of these children in the regular grades are rejected by their classmates. Of equal importance is the fact that a few are not only accepted by their classmates but are also assigned the sociometric pinnacle of stardom.

Three questions are appropriate in trying to ascertain why some retardates are accepted by their peers while many others are not. First, we can inquire as to the characteristics of the accepted as compared with the rejected children. It seems safe to assume that the accepted children are the "opposite numbers" of their less fortunate mates in many ways. They are probably more sensitive to the values of their peers and able to meet the criteria for assimilation into the class. Second, we can ask about the "tolerance level" of the class. There is considerable evidence that some groups can tolerate characteristics, mannerisms, and behaviors of certain types while other groups react negatively. Third, we would be justified in asking about the teacher's attitude as well as attitudes of other school personnel. Research has shown that the teacher, aware or not, can set the tone for the classroom and influence the decisions of many of his pupils through subtle acts and statements.

Returning to the first question, we find that sensitivity to children's differences as well as to their similarities is the first

stage in reducing the undesirable differences. Often, differences in behavior are clusters rather than single entities. From the behavior of the rest of the class, it might look as if Tommy, for example, is rejected because of his bullying. The fact, however, may be that he is unattractive because his personal hygiene is substandard, and he cheats in games. Working with Tommy on all three conditions is necessary, if he is to become acceptable to the group. Shall the teacher work on all three simultaneously or one at a time? The decision is the teacher's on the basis of the demands of the moment and the readiness of Tr[illegible] accept help.

[illegible] second question into focus. In working with retard[illegible] integration, the teacher should appraise the limits of tole[illegible] of his class. The teacher's limits are not enough. They ma[illegible]e too high or too low, with the result that the child is either ill-prepared or overly pressured. At times, the teacher will wonder why seemingly minor transgressions on Tommy's part elicit punishment far in excess of the crime. Are the children overreacting? Possibly. But there is also the possibility that these are acts that the class just will not tolerate even though the teacher might. The opposite extreme would be for the teacher to strive for Tommy's superadjustment which could be very frustrating and bewildering to Tommy. He sees his peers accepting him, while his teacher demands perfection.

The third question relative to the teacher's attitude and that of other personnel is probably the most anxiety-provoking of all because it is so difficult to answer. How does one know whether or not innuendoes in statement, act, or mannerism are influencing the pupils and turning them against the retarded child? Do seemingly innocent remarks about the appearance, ability, and behavior of the retarded child serve as a message to the rest of the class that the teacher approves of their acts of rejection? Certainly the teacher must be objective, and he must ask himself how he is affecting the acceptance of the retarded child by the members of the class. The question, however, must be asked as part of the total effort to effect integration of the retarded child in the regular class.

The exploratory stage described above will help the teacher develop the assumptions that underlie an attack on the problem.

Retarded children can learn adaptive behavior

There will be indications that certain behaviors and/or attitudes of the retarded pupil appear to be the sore spots that require attention. These are not, however, exclusively the responsibility of the rejected child. The entire class has a role in effecting integration. The teacher will have to work with all of the children to help them recognize and appreciate abilities along with disabilities, to accept the unfamiliar along with the familiar, and to develop understanding as to why others behave as they do. These learnings need not await maturity to accrue; they can be as much a part of classroom learning as the academic subjects.

In planning a strategy for group unity, the teacher will have to decide how to effect desirable changes. There are many who believe that retarded children can best be educated through indoctrination. This is commonly referred to as "inculcating habit patterns." To bring this into modern terms, this procedure is analogous to "programming." When certain stimuli are presented, very specific responses occur. For example, the child can be "programmed" so that any time he finds himself indoors, he takes his hat off. We can see, however, that programming behavior must be carefully thought through so that efficiency will be achieved. The key word in our example is "indoors." Suppose the teacher did not visualize the implications in this sequence of events and used "in the school" instead of "indoors." The child would then have to learn a new program for church, theater, and the like until either the teacher, some other authority, or the child himself saw the feature common to all of these and made the necessary change.

The opposite of teaching for automatic behavior in the form of habits is teaching the concepts that make possible adaptive behavior. Research studies have shown that mentally retarded children can learn these concepts and that they can use them independently in everyday life. There are many advantages to this procedure, particularly if the student is given practice that will help him to generalize concepts appropriately. Teaching the concepts alone makes for little more than an intellectual exercise. Teaching for the concept and its generalization in appropriate situations and under appropriate conditions helps the pupil apply what he has learned and gives him a tool for adaptation that he can use as he sees the need for it.

The extent to which the mentally retarded can learn concepts and effect generalizations varies with each child. This, however, is true of all kinds of children and should not be a deterrent. Working *with* each child according to his requirements is indicated. The word "with" is italicized to emphasize the fact that the child must enter into the learning situation if he is to acquire concepts. Lecturing and drill will probably acquaint him with the verbal symbols and labels for the concept, but the idea fundamental to the concept may well elude him. Indications are that the two most profitable methods are (a) evaluative discussion of what has happened, why, and what might remedy the situation and (b) sociodrama of situations that are analogous to the problem. The teacher should involve other children in these exchanges, since some insights into how their retarded classmate thinks and acts would be to their advantage. There is little doubt that teaching for concepts is more time consuming and more laborious than indoctrination. Over a long period of time, however, the cumulative nature of conceptual learning and generalization makes for greater adaptivity and reduces the number of automatic behaviors.

Problems Facing the Retarded Child

At this point, the question might be asked why so much emphasis upon helping the mentally retarded child win acceptance in the regular class? After all, many children, not all of them

retarded, pass through the grades to graduation without having many active relationships with their peers. Some of them go on to college and become quite successful. Others carve out their places in society and seem to get along very well.

For the retarded individual, however, the problems that underlie his difficulty in adjusting to the academic and social criteria of the public school persist throughout his life span. In this sense, school life is a forewarning of what is yet to come. We must remember that the retarded child has potential for making an adjustment within the limits of his ability if someone in his environment takes the time and trouble to bring out his potential. Should this occur, the probability of assimilation into society at maturity is enhanced.

The teacher might want to consider what lies ahead for the retarded pupil. Will postschool society make a place for him with the same sense of responsibility typical of the public school? Studies of adult retardates indicate that, in contrast to the practices in the public schools, society makes few concessions to the intellectually subaverage person, and that these concessions are usually made after he is in trouble of some kind.

In the vast majority of cases, the retarded graduate is limited to occupations in the unskilled industrial and service categories. A small portion get jobs that are classified as semiskilled. These jobs are not reserved for the retarded by any means. They must compete for these jobs as they must compete for everything else.

Three seemingly unrelated conditions operate together in society to emphasize the need for effective educational preparation for retarded children. These are the following:

1. The large number of high-school dropouts
2. The disappearance of many unskilled occupations
3. The growing complexity of occupational and social situations.

Large number of dropouts. The problem of high-school dropouts has two ramifications. First, a sizable number of retarded high-school pupils leave as soon as they reach the legal age for dropping out of school. They often do so to escape from an onerous situation—a school setting that is antagonistic. This situation is particularly true in those schools where no provisions are made for these pupils. The day-to-day frustration and ig-

nominy experienced in typical high-school classes are often more than the retarded pupil can bear.

We need not dwell on the effect on the retarded adolescent of leaving school early. He is often immature socially and emotionally and has a minimum development of skills and abilities. Obviously, this minimizes his desirability as an employee and affects his ability to adjust independently in society in general.

The second aspect of the problem has to do with dropouts other than the retarded. These pupils are less competent occupationally than those who graduate, but they are generally more competent than the retarded. The lack of schooling of these dropouts often limits their range of employability to the same class of occupations sought by the retarded. As a result, the competition for even the most menial jobs can be very keen.

Disappearance of unskilled occupations. During the days of hand labor, there were many kinds of jobs open to the retarded. As mechanization became more widespread, these jobs either disappeared or were lumped together into new and more complex clusters. A good case in point is that of the male farm laborer and the female houseworker. Years ago, farm and household jobs were excellent prospects for male and female retardates. Then the tractor, the electric milker, and a broad variety of highly technical equipment came to the farm. More mechanized farm tools made it possible for one man to prepare and care for large areas of land and to bring in the harvest. The need for the handyman has all but vanished, according to studies of the labor pool. In the home, the scrubboard and tub have been supplanted by the automatic washer, the rug beater by the vacuum cleaner, and the dishpan is being replaced by an automatic dishwasher. While complete pushbutton housework is not yet a reality, there is enough to reduce the need for household help tremendously. The same story has been repeated in industry by automation and by complex laborsaving devices.

Together, mechanization and automation have reduced the number of occupational possibilities for the retarded and other unskilled to proportions that are of great concern to educational and rehabilitation personnel.

Complexity of occupational and social situations. Sooner or later, every generation comes forth with the conclusion that "life

is tough and getting tougher." This is probably right. Ways of doing things are truly increasing in number and in intricacy. We are forever running up against new rules (formal and informal), new customs, and new taboos. To complicate matters, the old do not disappear quickly. Instead, there is an overlap and, in some cases, an incorporation of certain aspects of the old into the new. Not long ago, a person hopped into his automobile and, all things working well, drove directly to his destination. Then came the traffic signal light with all of its frustrations and sanctions. Now a person can find traffic signal lights that permit travel in any direction, given the green light. Others, however, permit "straight aheads" on the green, but left or right with the arrow and then only before 4:30 p.m. and after 6:30 p.m. We shouldn't overlook the "lane." These often shout "LEFT TURN ONLY." How many drivers of superior intelligence have found themselves unexpectedly in that lane and have had to make an unplanned-*for* turn?

Getting and holding a job presents a similar picture of complexity. Application forms, union membership procedures, income tax deductions, fringe benefits, and the like are typical of most jobs today. Credit buying, banking, insurance, social security, and many others make self-support a complex procedure. The adult who is retarded must cope with all of these. For most adults, the complications of everyday life are introduced in the subject matter of school and college. Practice outside of school brings skill to behavior. Without public-school preparation for these situations, the retardate is doubly handicapped.

To the above, we can add the information that has come from studies of the mature retarded in work settings. The customs on the job are often stumbling blocks for the retarded. The time for doing things and "the way we do it here" are often difficult to learn. Errors or infractions often bring down the ridicule of coworkers. Such ridicule constitutes a postschool world of rejection that works against successful assimilation into society, as it did in the classroom.

The needed contribution of the school is obvious. Training in the fundamentals of occupational and social adjustment needs to be an integral part of the school's work with the mentally retarded.

Problems Facing the Teacher

The case for the teacher's constructive role in educating the educable mentally retarded child in the regular grades has been made. Admittedly, the easier task is to point up what should be done and why. The more difficult job is to ascertain how.

The condition that makes the task of working with the retarded child so difficult is the combination of the individual differences among class members and the pressure generated by the standard curriculum. Together, these militate against the teacher's being able to cope with extremes in ability or behavior of any kind. These pressures become more obvious with each succeeding grade as differences between the extremes become greater. As the class moves into increasingly abstract learning and functions, the limited ability of the retarded pupil to handle these learnings becomes more obvious. During and after the third grade, the classroom teacher has to operate on two fronts simultaneously. The majority of the class is engaged with the standard curriculum. The retarded child, however, is still at grips with primary-level work. By the fifth grade, he may be three to four school years behind the rest of the class.

In handling the difficulties inherent in trying to work on two fronts simultaneously, there is no substitute for conscientious effort. The task can be and often is discouraging, particularly if the teacher holds the same aspirations for all of the pupils. Often teachers, oriented to achievement in academic areas, will hold strong expectations of the same kind for the retarded child. While academic skills should not be underplayed, the teacher should recognize that the social growth of the retarded child is of equal importance. In this sense, then, the acquisition of academic skills ceases to be an end in itself for the retarded pupil and becomes a means toward an end.

Indications are that the teacher should work with the retardate to help him develop academic skills to the degree that he can and then help him to apply these skills in problem-solving settings. To do this, many teachers will have to broaden their concepts of what constitutes reading and arithmetic. Reading is not necessarily confined to the textbook. It may encompass appropriate sections in the newspapers, such as want ads and announcements

of sales. Deriving the message from a poster or picture is also, in a sense, reading. Arithmetic follows a similar pattern. There are skills to be learned over and above computation and measurement. Both quantitative and qualitative concepts can be learned through discussion and action. These include facts about money, time, size, shape, and other information critical to adulthood.

The major item for the teacher to find is time. There is no really effective alternative to the teacher's teaching. The child working in isolation with workbooks and seat work in no way approaches the dynamism of the interaction between teacher and student. Occasionally, the classroom teacher who takes the time to work with the retarded child experiences the gnawing doubt of, "Is it worth it?" The answer is obvious. If the teacher's efforts contribute to the child's social growth so that he stands a chance of making the adjustment at maturity that will prevent his going to an institution or in some way becoming a burden on the community, it is indeed worth the effort.

A beginning to effective work with the retarded pupil in the regular classroom is in setting aside as much time as the press of other duties will permit. Next comes working with the child toward the development of both academic and social skills. Along with setting aside time and planning for lessons and experiences that will help to develop academic and social skills, the teacher can turn toward the coordination of other services in the school and in the community.

What Are Integrated Services for the Retarded?

We must recognize that the classroom teacher has the key, but not the total role in educating the retarded child in the regular classroom. It would be visionary to expect the teacher to meet the demands of the majority in the class, as well as those at the extremes of achievement, all by himself. A more reasonable approach would be for the teacher to contribute where he can be most effective and to call in other specialists to supplement his work. These specialists can be other school personnel and, when the pupil begins to approach readiness for employment, such community agencies as placement and rehabilitation services.

Experience and research indicate that the role of the teacher is to integrate these services by acting as the source of information and guidance. In the elementary school, the teacher is justified in expecting assistance from such specialists as those in art, physical education, and music. For these specialists, the teacher should have ready the information that describes the assets and liabilities of the pupil. These facts will help the specialists fit the child into the activities of the total class in a way that will contribute to both the class and child.

Program Changes

The trend in the direction of providing specialized educational programs for the educable mentally retarded pupils is continuing. This trend is probably least noticed in rural and moderate-sized communities, where teacher and space shortages in areas of specialization are predominant and where pupils do not exist in sufficient number to warrant a special class. In some communities, two new approaches to the problem of the teacher shortage are in a formative stage. These are (a) the visiting teacher and (b) the cooperative district.

The visiting-teacher program is just what its title implies, and is being tried out in areas where the population is dispersed widely and where school districts are small. Generally, the visiting teacher is employed by the county or other large unit. First, his function is to supplement the examination of the psychological examiner by evaluating the educational and social status of the educable mentally retarded pupil in the regular class. With this information organized, the visiting teacher is ready to formulate a procedure for working with the child and his regular classroom teacher. In some cases, the procedure can be such that the classroom teacher can handle it with only consultant help of the visiting teacher. In other cases, the two teachers may have to share responsibility. The visiting teacher's share is to work individually with the pupil to supplement the classroom teacher's efforts. Most frequently, this is necessary when the child is markedly deficient in a key skill.

While the value of the visiting-teacher program has not yet been ascertained, it suggests much promise and certainly appears

to be an improvement over the present custom of leaving the classroom teacher to his own devices. Probably the crucial factor in the totality of the visiting-teacher program will be the background and ingenuity of the teacher. This type of program calls for a teacher very conversant with the retarded and their problems and how these problems affect classroom learning and adjustment. On top of this, the visiting teacher should be very flexible in originating and implementing procedures; the willingness to try something new is probably a key attribute.

The cooperative district, also an innovation in many states, is an outgrowth of county-operated classes. In some states, the county superintendent is required to provide special classes where local districts have too few pupils to set up classes. In other states, however, this possibility does not exist. To develop regional services, then, several contiguous districts have banded together to set up classes to which each sends its educable mentally retarded children. Typically, these districts share the costs involved in operating the class or classes, including a full-time director of the program. A few states have recognized the merits of the cooperative district plan and have developed means for helping financially with management and transportation costs.

The major advantage of the cooperative district is that it makes special class provisions possible for educable mentally retarded children that are commensurate in quality with those in larger districts. These classes must meet all of the standards of the state-approved class and therefore provide more assurance that the educable mentally retarded children are going to get the type of education they need.

Evaluation for the Teacher

The classroom teacher need not feel that evaluation of his effectiveness must await objective, formal instruments of measurement. Certainly, experience and insight are powerful bases for evaluation in and of themselves. The following are suggested checkpoints in teacher evaluations of the status and progress of the educable mentally retarded child in the regular classroom:

1. Educable mentally retarded children should be evaluated in accordance with their level of performance as suggested by

their intellectual status and not by the standards set for the rest of the class. An educable mentally retarded child could be working right up to his potential and yet be well behind the rest of the class in achievement.

2. Educable mentally retarded children should be engaged in a program of learning that is consonant with healthy social and emotional growth. These constitute an important basis for evaluation and should not be overlooked in favor of academic learning. In fact, there is a trend in opinion that suggests that good social and emotional learning is the major goal for the educable mentally retarded and that academic learning is but one means toward this end.

3. How does the child feel about school? Is he adjusted to his liabilities and accepted by his peers despite them? The educable mentally retarded child's evaluation of his own status is one dimension of the teacher's evaluation. It follows that a teacher who has been successful in integrating the educable mentally retarded child into the total class will have obvious evidence of his effectiveness in the attitudes of his educable mentally retarded pupil and in the attitudes of the rest of the class.

As a precaution against oversubjectivity, a systematic record of the educable mentally retarded child's progress in the form of available tests and anecdotal records will guard against the fallibility of memory. In some cases, the progress of the educable mentally retarded child is so subtle as to defy short-term evaluations. Judgments should be made over broad spans of time, and records will help to make this possible.

Teachers of educable mentally retarded children should not be discouraged if their evaluation shows that gains and changes are slow and subtle. Rate of change will probably be commensurate with intellectual ability. The important and hopeful outcome of the teacher's efforts will be positive change in any amount.

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